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Amendment to the Claims:

The listing of claims will replace all prior versions and listings, of the claims in the application:

Listing of Claims:

1. (Original) A device for processing data transmission units (DTUs) having encoded thereon data related to a performance of a network, the device including:

- at least two processor modules for processing the data;
- a controller for receiving the data, controlling the at least two processor modules the controller having:
  - a status register for recording availability of the at least two processor modules;
  - a level register for recording a level at which a processor module is working; and
  - a working register for recording a priority sequence of the at least two processor modules based on a level recorded in the level register;
- an interface coupled between the at least two processor modules and the controller, wherein commands and incoming data are received by the controller and are passed on to the at least two processor modules by the interface.

2. (Original) A device as in claim 1 wherein the level register records a TCM (tandem connection monitoring) level at which a processor module is working.

3. (Original) A device as in claim 1 wherein the data is encoded in a header of the DTUs.

4. (Original) A device as in claim 1 wherein the processor modules perform bit interleaved parity calculations on a payload of the DTU.

5. (Currently Amended) A method for processing data transmission units (DTUs) to monitor the performance of multiple connection across a single network, the multiple connection being made through access points of the network, the method being performed at the access point, the method comprising:

a) receiving a DTU for processing;

b) creating data relating to a payload of the DTU for use as an indication relating to a performance of a network through which the DTU is to transit ~~through~~;

c) storing the data in the DTU;

d) incrementing a tandem connection monitoring level for the DTU; and

e) transmitting the DTU through the network for eventual transmission to a destination.

6. (Previously Amended) A method as in claim 5 wherein the data is stored in a header of the DTU.

7. (Previously Amended) A method as in claim 5 wherein the tandem connection monitoring level for the DTU uses an offset internal to a device executing the method.

8. ((Previously Amended) A method as in claim 5 wherein the data created in step b) is created using bit interleaved parity calculations.

9. (Currently Amended) Computer readable media having encoded thereon instructions relating to a method of processing data transmission units (DTUs) to monitor the performance of multiple connection across a single network, the multiple connection being made through access points of the network, the method being performed at the access point, the DTUs having encoded thereon data related to a performance of a network, the method comprising:

a) receiving a DTU for processing;

b) extracting data related to a performance of a network from the DTU;

c) transmitting the data to a processor module;

d) performing a check on the data using the processor module to determine if the network has introduced errors to the DTU;

e) decrementing a tandem connection monitoring level for the DTU; and

f) transmitting the DTU to a subsequent network for eventual transmission to a final destination.

10. (Currently Amended) The computer readable media of ~~A device as in~~ claim 9 wherein the data is stored in a header of the DTU.

11. (Currently Amended) The computer readable media of ~~A method as in~~ claim 9 wherein step d) is accomplished by performing bit interleaved parity calculations on a payload of the DTU and comparing a result of the calculations with the data.

12. (Currently Amended) The computer readable media of ~~A device as in~~ claim 9 wherein the tandem connection monitoring level for the DTU uses an offset internal to a device executing the method.